Catch Basin, Manhole and Drain Summary
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Location (Bldg. # / Tank farm/ Roof)	Storm / combined/sanitary	MH / Drain Lid Description	Dimensions (ft, in)			Grate removable Y /N	Condition	Pipes			Observations			Surrounding area / Comments
			L	W	D			In /Outlet	Dia. (in)	Orient.	sediment	paint chips	other	
CB 2*	Storm	Steel Grate	2.4'	2.1'	3.4'	Y	Good	Outlet	4"Green PVC	South	~0.5"			asphalt pavement; traffic area
CB 3*	Storm	Steel Grate	2'	1.7'	4.7'	Y	Good	Inlet Inlet Outlet	4"Green PVC 4"Green PVC 6 " Cast iron	North South West	4-6"			Site Plan ID - BNSF CB 2, asphalt pavement; traffic area
CB 6*	Storm	Steel Grate	2.2'	1.9'	4.3'	Y	Good		6" Cast iron 3" Cast iron	East South	2.1'			Tank Farm ID - CB2; with sock installed Concrete pavement and brick tile
CB 7*	Storm	Steel Grate	2.2'	2'	4.25'	Y	Good	Outlet	6" PVC	North	1.35'			Tank Farm ID - CB6; with sock, with sediment on concrete pavement
CB 8*	Storm	Steel Grate	2.3'	2'	3.05'	Y	Good	Outlet	6" Cast iron	West	1.15'			Tank Farm ID - CB4; without sock, concrete pavement, constr. Material adj. to CB
CB 9*	Storm	Steel Grate	2.3'	2'	4.3'	Y	Good		6" Green PVC 6" PVC 6" Black plastic	West South East	3'			Tank Farm ID- CB5; with sock , observed bentonite grout in sock Sediment on concrete pavement, constr. Mat. and vegetation adj.
CB 10*	Storm	Steel Grate	2.3'	2'	2.9'	Y	Good	Outlet	6" Cast iron	West	10"			Tank Farm ID - CB1; with sock installed, sediment on Brick Tile, constr. Mat. surrounding
CB 11*	Storm	Steel Grate	2.3'	2'		Y	Good	See comments						Tank Farm ID - CB3; with sock; unable to access - construction wall supports on grate
CB 18*	Storm	Steel grate	2.2'	1.9'	5'	Y	Good	Inlet Outlet	8" Green PVC 8" Green PVC	South North	0.75'			Asphalt pavement; standing water in CB
CB 19*	Storm	Steel grate	2.2'	1.9'	5.2'	Y	Good	Outlet	8" Green PVC	East	0.3'	present		Asphalt pavement, stall
CB 20*	Storm	Steel Plate	2'	2'	10.9'	Y	Good	Outlet Inlet	12" Cast iron 12" Cast iron	South North	0.4'	present		Roof of Bldg adj. and North of Bldg 19
CB 22*	Storm	Steel Grate	2.1'	1.9'	4.32'	N	Good	Inlet Outlet	8" Green PVC 8" Green PVC	South North	6"		organics	Lid locked in place asphalt pavement, traffic area
CB 24*	Storm	Steel Grate	2.1'	1.9'	4.1'	Y	Good	Inlet Outlet	4" plastic 8" Green PVC	West East	6"			asphalt pavement, traffic area black corrugated plastic pipe
CB 26*	Storm	Steel Grate	2.2'	1.9'	4.5'	Y	Good	Outlet Inlet	8" PVC 4" plastic	West Southeast	6"			with sock black corrugated plastic

Catch Basin, Manhole and Drain Summary
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Location (Bldg. # / Tank farm/ Roof)	Storm / combined/s anitary	MH / Drain Lid Description	Dimensions (ft, in)			Grate removable Y /N	Condition	Pipes			Observations			Surrounding area / Comments
			L	W	D			In /Outlet	Dia. (in)	Orient.	sediment	paint chips	other	
CB 1	Storm	Steel Plate w/holes	3'	2.6'	3'	Y	Good	Inlet Inlet Outlet	6" PVC 4" Cast iron 8" Cast iron	West SW North	~ 1 "			Site Plan ID -BNSF CB 1; concrete vault asphalt pavement; traffic area Brick fragments in vault
CB 4	Storm	Steel Grate	1.25'	1.25'	1.33'	Y	Good	Outlet	4"Green PVC	North	~ 1"			asphalt pavement; traffic area
CB 5	Storm	Circular steel Lid, with partial grate	See comments		5'	Y	Good		8" Cast iron 8" Cast iron 4" PVC 8" Cast iron	NE East West South	2-4 "	present	organics and debris	Lid diameter - 2.3'; Inside diameter- 5'; asphalt pavement; in parking stall and adj. to sidewalk
CB 12	Storm	Steel Grate	1'	1'	0.83'	Y	Good	Outlet	3" concrete	North	3.5"		organics	near concrete steps, broken concrete fragments in CB
CB 13	Storm	Steel Grate	10.5'	0.65'	1.1'	Y	Good	Outlet	6"	West end of Strip drain	1-2"	present	organics and debris	Strip drain, asphalt pavement surrounding
CB 14	Storm	Steel Grate	2.1'	0.65'	1'	Y	Good	Outlet	6"cast iron	West	4-5"	present		covered with metal plate and sediment
CB 15	Storm	Steel Grate	2'	0.65'	1'	Y	Good	Outlet	6" cast iron	West	1-2"	present		Asphalt pavement surrounding
CB 16	Storm	Steel Grate	2.1'	0.7'	0.8'	Y	Good	Outlet	8" cast iron	North	¼-½"	present		Asphalt pavement surrounding
CB 17	Storm	Steel Grate	0.8'	0.8'	1.5'	Y	Good	Outlet	4" PVC	West	trace	present		in a concrete walkway near entrance to Bldg 25
CB 21	Storm	Steel Grate	see comments			N	Good	Outlet	6" PVC	Northeast	trace	present		Brass roof drain cover - 6" diameter, screws have been stripped Paint chips adj. to drain and on roof
CB 23	Storm	Steel Stormceptor	10.4'	2.4'	4.7'	Y	Good	Outlet	6	North	3"			asphalt pavement, traffic area
CB 25	Storm	Steel Grate	88.15'	0.4'	1'	Y	Good	Outlet	4" PVC	North	¼ - 3 "	present	organics	¼ inch sediment at north end, 3" sed. at south end; strip drain located outside truck bay doors
CB 27	Storm	Steel Stormceptor	8.8'	2.4'	3.75'	Y	Good				3.75'			Plugged with Sediment

Catch Basin, Manhole and Drain Summary
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Location (Bldg. # / Tank farm/ Roof)	Storm / combined/sanitary	MH / Drain Lid Description	Dimensions (ft, in)			Grate removable Y /N	Condition	Pipes			Observations			Surrounding area / Comments
			L	W	D			In /Outlet	Dia. (in)	Orient.	sediment	paint chips	other	
MH 1	Sanitary	"Sewer" MH Lid	See comments		2'	Y	Good	Inlet Outlet	6" Cast iron 4" Terra Cotta	NE South			plugged w/ bio solids &Toilet products	MH Lid diameter- 1.85' / inside diameter-3'; asphalt pavement; in parking stall
MH 2	Combined	"Sewer" MH Lid	4.5'	4.5'	5'	Y	Good	Inlet Inlet Inlet Outlet	8" Terra Cotta 8" Terra Cotta 12" Cast iron 12" Concrete	North North East West	trace			Lid diameter - 2.25', Site Plan ID - CB14 concrete and brick constr. traffic area, asphalt pavement parking stall
MH 3	Sanitary	"Sewer" MH Lid	3'	2.5'	5'	Y	Good	Inlet Outlet	12" Concrete 12" Concrete	East SW	trace			Lid diameter - 2.25' asphalt pavement; traffic area
MH 4	Sanitary	MH Lid	5'	5'	5.2'	Y	Good	Inlet Outlet	12"Cast iron 12"Cast iron	North/NE South/SW	trace			Lid Diameter - 2.3' 4" water line crosses above
MH 5	Combined	"Sewer" MH Lid			5.35'	Y	Good	Inlet Inlet Outlet	4" Cast iron 12" Concrete 12" Concrete	NE North South	trace			Lid diameter- 1.8'; 2.5' diameter brick and mortar vault traffic area, asphalt pavement
MH 6	Combined	Steel MH lid with handle	5.3'	5'	8.3'	Y	Good	Inlet Inlet Inlet Inlet Inlet Inlet Outlet	12" 12" 8" cast iron 8" cast iron 6" PVC 4" PVC 18" concrete	East SE East East South South West	trace	present		Steel Lid-1.85' diameter with handle Ladder present wooden lagging and concrete construction
MH 7	Storm	Circ. MH Lid	see comments		3.05'	Y	Good	Inlet Inlet	6" cast iron 4" Terra Cotta	East SW	3"	present		MH lid-1.5' diameter; covered with metal plate
MH 8	Storm	Steel MH Lid	3'	3'	5'	Y	Good		4" cast iron 6" cast iron 6"cast iron 6" cast iron	South South South West	1-2"	present		Circ. concrete vault casing MH Lid - 2' diameter Asphalt pavement surrounding
MH 9	Storm	Steel Lid	4.5'	3'	7'	Y	Good	Inlet Inlet	6" Cast iron 4" Cast iron 12" Cast iron 4" Cast Iron 4" Cast iron	North West South South	6"	present		Steel lid - 2.1' diameter Ladder present 12" Cast iron - capped paint chips and debris near MH lid
MH 10	Storm	Steel Lid	see comments		13.75'	Y	Good		4" Cast iron 6" Cast iron	North East	trace	present		Inside bldg. 20; Steel lid-2.15' diameter, Concrete casing- 2.5 ' in diameter paint chips at top of casing

Catch Basin, Manhole and Drain Summary
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Location (Bldg. # / Tank farm/ Roof)	Storm / combined/s anitary	MH / Drain Lid Description	Dimensions (ft, in)			Grate removable Y /N	Condition	Pipes			Observations			Surrounding area / Comments
			L	W	D			In /Outlet	Dia. (in)	Orient.	sediment	paint chips	other	
D1		circ. cast iron drain	see comments			y	good							6 in. diameter cast iron drain. Surrounded by organic growth and sediment.
D2		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D3		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D4		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D5		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D6		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Inlet plugged with sediment and debris.
D7		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diamter cast iron drain. Partially covered in organic growth and sediment.
D8		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D9		circ. cast iron drain	see comments			y	good	outlet	1.75"	down				7.5" diameter cast iron drain. Partially covered in organic growth and sediment.
D10		circ. cast iron drain	see comments			y	good							6 in. diameter cast iron drain. Surrounded by organic growth and sediment.

MH - Manhole (access)
CB - Catch Basin (drainage)
D - Drain (drainage)
* - should be compatible with standard sized catch basin inserts

Roof Drain Summary
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Building #	Influent downspout sources (sources that flow onto roof of building)	Effluent runoff sources (sources that flow from the roof)	Comments
3	DS1 (roof 4)	**RD1, RD2**	RDs appear to go into concrete slab into system
2	none	**RD5, RD4, RD3**	RD3 and RD4 appear to drain onto grass, RD5 drains into system
25	DS2 and DS3 (from stairwell section of bldg 25)	RD6, RD7, RD8, RD9, RD10, RD11, RD12	RD6-12 appear to collect and drain onto BLDG22 through DS4, old RD opening on S side of roof 2" above roof floor
22	DS4, DS5	DS6, DS7, DS8, **RD13, RD14**	DS6, DS7 drain onto BLDG6, DS8 drains onto BLDG7, RD13 and RD14 drain down to the ground and system
21 high point	DS9, DS11, RD16 and RD17 through DS10	**RD15**	RD15 drains down to ground into system
5A	DS12 (roof 5)	DS14	DS14 drains onto BLDG4
4	DS14	DS1	DS runs onto roof of building 3
6	DS6, DS7, DS15, DS16	**RD19, RD20**	RD19 and RD20 appear to collect and flow through pipes down to roof of building 9 and enter there. Breaks in the wall connect building 6 and 7.
7	DS8	**RD29, RD28**	RD27 and RD28 run down the S.side of building 7 and enter into building 18.
9	DS17	**RD21, RD22, RD23, RD24**	all roof drains enter into building 9, pipes from roof of building 6 also enter building 9
8		DS18, DS19	Flow onto lower part of building 8 (see plan drawing)
8 Low	DS18, DS19	**RD25, RD26**	roof drains enter building 8 low
18		**RD27, RD28, RD29, RD30, RD31, RD32, RD33**	RD 27 - 31 enter building 18 while RD32 and RD33 appear to enter combined system on ground
15		**RD34, RD35**	RD34, RD35 appear to enter combined system on ground
14		**RD36, RD37, RD38, RD39**	RD36-39 enter into building 14
13		**RD40, RD41, RD42**	RD 41 enters building 13, RD40 and RD42 enter drains on the side of the building
23		**RD45**	RD45 runs on side of building and drains into system
12		**RD44**	RD44 runs on side of building and drains into system, hole in wall on roof of building 12 appears to be location of old RD
11		**RD43**	RD43 runs on side of building and drains into system
10		**RD46**	RD46 runs on side of building and drains into system
5		DS12, DS15	runoff from building 5 flows onto building 5a and building 6

Bolded items drain into storm or combined sewer system
RD - Roof Drains, sources that go into storm or combined sewer
DS - Down Spouts, drainage from one roof down to another roof

Inlet Protection Products and Vendors
Rainier Commons/Former Rainier Brewery
Seattle, Washington

Vendor	Products	Cost	Pros	Cons	Comments
Northwest Linings & Geotextile Products, Inc. 21000 77th AVE South Kent, WA 98032 253-872-0244 Contact: David Iwata	Ultra-DrainGuard Catch Basin insert (Standard Sized Insert)	$35 each	-Cost -More abundant than high flow socks	-Socks are likely to clog up faster than high flow options -Made from a cloth/felt material which will clog up faster and will get less reuses compared to high flow options	
	PermeaTex NWL 500 Spun Bond Geotextile	$35 per roll (100 yd^2)	-Cost -Supports a high flow rate when not loaded with sediment -Can be cut to fit multiple inlet sizes and other uses	-Cloth/ felt like material will clog up faster than woven material and will be harder to clean/empty for multiple uses -May be difficult to install and recover for emptying of collected solids	-Item sold by the roll, material would need to be cut to size for uses -Can be fit into irregular sized inlets (such as strip drains) -Can be used on the roof drains if anchored across or around drains with sandbags
ACF West Inc. Geosynthetic Products 15540 Woodinville-Redmond Road. Woodinville, WA 98072 425-415-6115 Contact: Don	Ultra-DrainGuard Catch Basin insert (Standard Sized Insert)	$38 each	-Cost -More abundant than high flow socks	-Socks are likely to clog up faster than high flow options -Made from a cloth/felt material which will clog up faster and will get less reuses compared to high flow options	
	Dandy Sack Inlet Protection (Standard Sized Insert)	$75 each	-Should hold up to multiple more uses when compared to regular socks. -Will support a higher flow of water without clogging or overflow when compared to regular socks -Overflow slots are optional in this sack	-Cost -Vendor has limited number of sacks in supply	
	"high flow" silt sacks (Standard Sized Insert)	$60 each	-Should hold up to multiple uses when compared to regular socks. -Will support a higher flow of water without clogging or overflow when compared to regular socks -Made from woven material allowing for easing cleaning of built up debris in socks -Made to fit a certain size (~2 ft^2 inlets)	-Cost -Vendor has a limited number in supply (20), but has the ability to order more.	-Sacks are made from the Mirafi FF101 fabric. -Designed to fit roughly 2ft*2ft catch basins
	Mirafi FF101 geotextile	$120 per roll (200 yd^2)	-Cost -Supports a high flow rate -Woven material allowing for multiple uses and ease of cleaning -Vendor is willing to cut material to fit multiple inlet sizes and other uses	-May be difficult to install and recover for emptying of collected solids	-Item sold by square yard (~$0.60 / yd2) -Can be fit into irregular sized inlets (such as strip drains) -Can be used on the roof drains if anchored across drains with sandbags -Custom fabrication of material into catch basin inserts is possible but likely very costly